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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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COUNTRY China

REPORT

SUBJECT Exports of the China National
Machinery Import Corporation

DATE DISTR. 27 February 1957 25X1

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REFERENCES

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SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

Two descriptive leaflets giving the specifications of machinery manufactured in Communist China. Both are in English and include diagrams as well as pictures of the machines described. The leaflets, put out by the China National Machinery Import Corporation, Peiping, are as follows:

- a. Gear Hobbing Machine, Model J375.
- b. Spur Gear Shaping Machine, Model J546.

they are unclassified when
detached from this report.

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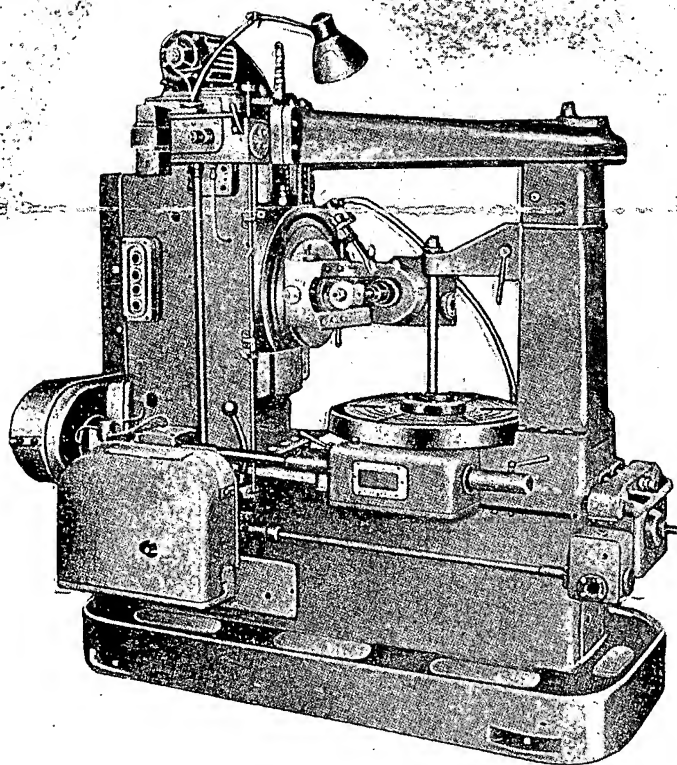
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INFORMATION REPORT INFORMATION REPORT

滾齒機

GEAR HOBBIING MACHINE MODEL J375



中國機械進口公司
CHINA NATIONAL MACHINERY IMPORT CORPORATION
IMPORTERS & EXPORTERS

ER-LI-KOU, HSI-CHIAO, PEKING, CHINA

CABLE ADD: "MACHIMPORT" PEKING

GEAR HOBBIING MACHINE

MODEL J375

This machine is suitable for hobbing the spur, helical gears, and worm wheels. It is fitted with hob for cutting operations on the generating principle.

Speeds of cutter spindle, feeds of cutter or working table, continuous indexing of gear train, and the differential mechanism are all regulated through the change gears.

The spindle can revolve either in normal or reversed direction.

The feeds of the tool slide and the working table can be operated by hand.

The machine can be employed for cutting of internal gears by using a special attachment. Two electric motors are provided for this machine.

Max. module:

Normal cutting	...	...	...	...	...	...	...	...	...	6
Low speed cutting	...	...	...	...	...	...	...	...	...	8
Max. outside diameter of spur gear	...	...	...	...	...	...	...	...	...	750 mm.
Max. outside diameter of helical gear:										
At angle 30°	...	...	...	...	...	...	...	...	...	500 mm.
At angle 60°	...	...	...	...	...	...	...	...	...	190 mm.
Max. height to be cut	...	...	...	...	...	...	...	...	...	250 mm.
Distance between centre lines of the working table and cutter:										
Minimum...	...	...	...	...	...	...	...	...	...	30 mm.
Maximum	...	...	...	...	...	...	...	...	...	480 mm.
Distance between surface of the working table to the cutter spindle centre line:										
Minimum...	...	...	...	...	...	...	...	...	...	165 mm.
Maximum	...	...	...	...	...	...	...	...	...	418 mm.
Diameter of working table	...	...	...	...	...	...	...	...	...	580 mm.
Max. traverse of working table (hand)...	...	...	...	...	...	...	...	...	...	450 mm.
Max. size of the hob (Dia. x L)...	...	...	...	...	...	...	...	...	...	120 x 130 mm.
Max. vertical movement of tool slide (power or manual)...	...	...	...	...	...	...	...	...	...	250 mm.
Distance between center-line of cutter to guide of tool slide										218 mm.
Max. swivel angle of tool slide	...	...	...	...	...	...	...	...	...	360°
Taper in spindle bore	...	...	...	...	...	...	...	...	...	Morse No. 4

Cutter spindle speed ... 47, 58, 72, 87, 100, 122, 150 rpm.

Feed per revolution of working table:

Hob ... 0.25-4 mm.

Working table ... 0.105-1.68 mm.

Motors: 3-phase, A.C.

for main drive:

Power ... 3.2 KW.

Speed ... 1440 rpm.

for rapid traverse of tool slide:

Power ... 1 KW.

Speed ... 1410 rpm.

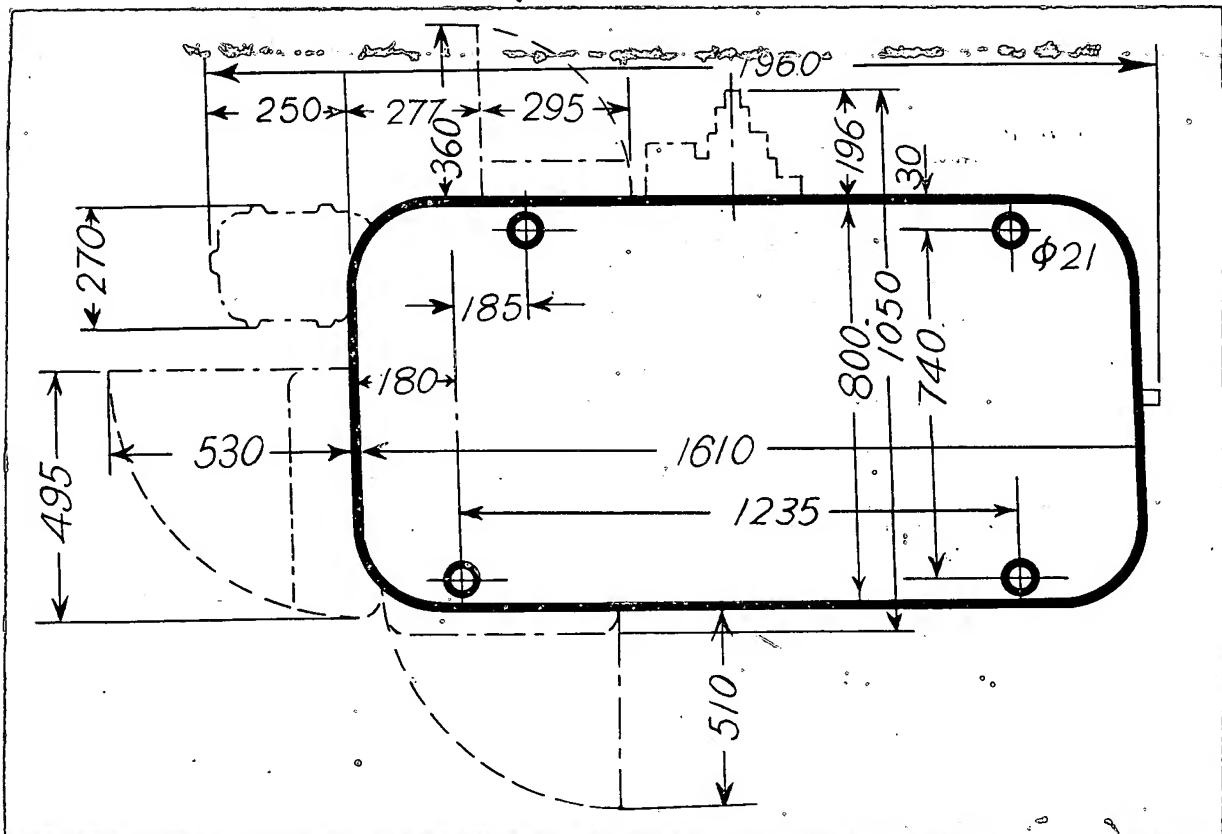
for coolant pump:

Power ... 0.125 KW.

Speed ... 2800 rpm.

Overall dimension (L x W x H) ... 1885 x 1160 x 1950 mm.

Net weight ... 2500 kg.



N.B.—For improvement of the machine, we reserve the right to alter either the design or the specification.

BRANCHES

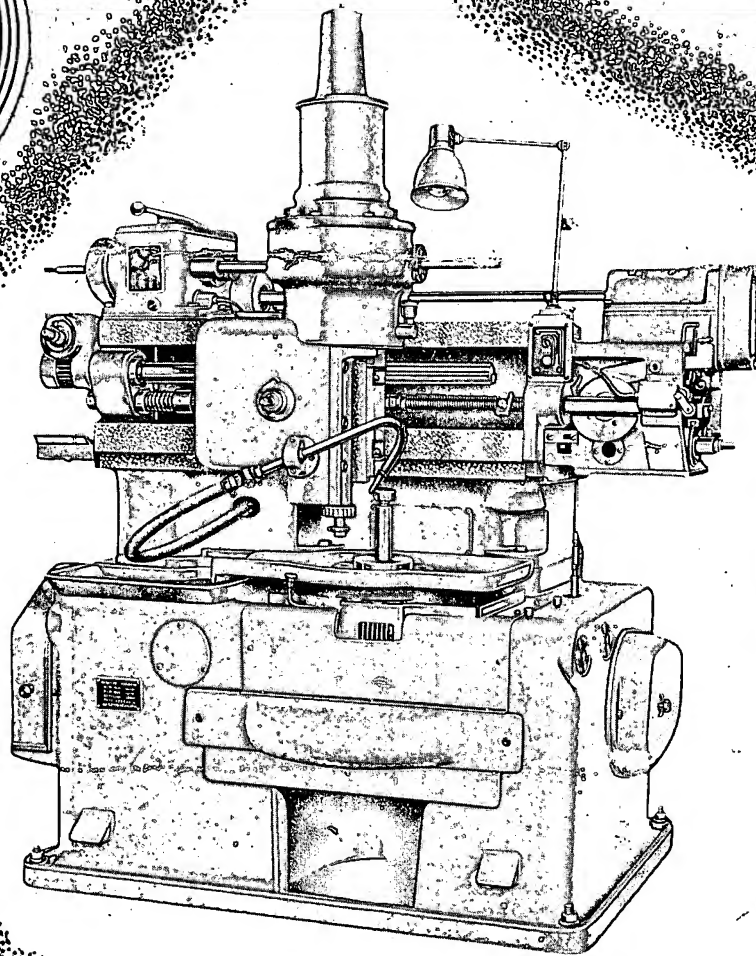
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插齒机 SPUR GEAR *Shaping* MACHINE

MODEL
J-546



中國機械進口公司

CHINA NATIONAL MACHINERY IMPORT CORPORATION

(IMPORT — EXPORT)

ER-LI-KOW, SHIH-CHIAO, PEKING, CHINA

CABLE ADDRESS: "MACHIMPORT" PEKING

SPUR GEAR SHAPING MACHINE

Model J546

This machine is used for shaping internal and external spur and helical gears.

The machine works on the generating principle of workpiece and cutter rolling together. It can be employed to cut helical gears when a special copying guide is fitted on the spindle of this machine.

This machine can also be used to cut gears such as stepcone gears, gears with shoulder, etc., which provide very little recess for the run out of cutter during cutting.

The number of reciprocating strokes and circular feeds of cutter are regulated by the gear box and the feeding box respectively. The indexing mechanism is controlled by means of change gears. The stroke of cutter can be adjusted by changing the position of set pin on the crank mechanism.

The teeth of the gear may be shaped by cutter in one, two, or three strokes. ~~The number of strokes and the feeding rate of first, second, and third stroke are controlled by means of a special mechanism.~~

The directions of rotation of the cutter spindle and the working table are independent of each other.

SPECIFICATION

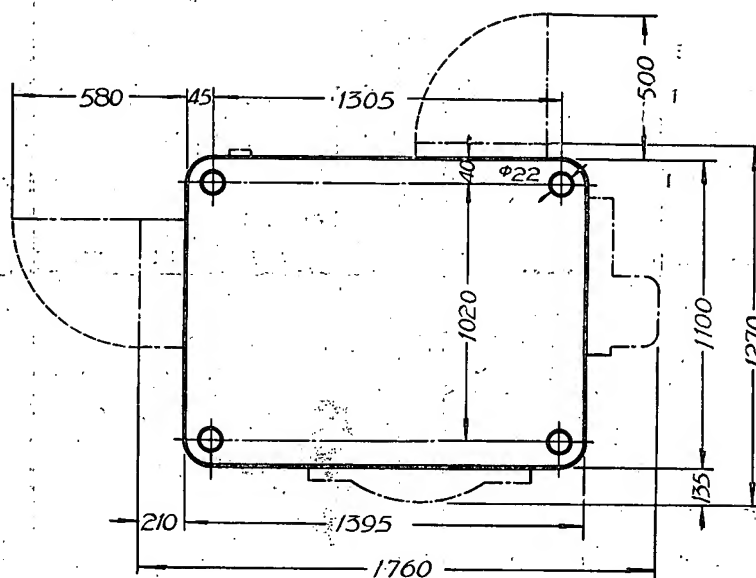
Min. and Max. module	2-6
Min. and Max. outside diameter of spur gear	20-462 mm.
Max. outside diameter of helical gear (spiral angle 23°)	462 mm.
Max. outside diameter of internal gear	550 mm.
Max. face width of gear:	
External	105 mm.
Internal	75 mm.
Max. helix angle for helical gear	23°
Max. pitch diameter of gear:	
External	450 mm.
Internal (when cutter of 100 mm. dia. is used)	400 mm.
Max. distance between centres of work and cutter	350 mm.

Diameter of working table	240 mm.
Max. stroke of slide	125 mm.
Min. and Max. distance between working table and lower face of cutter head	35-160 mm.
Max. longitudinal traverse of the cutter saddle	510 mm.
Traverse of the cutter saddle per one division of the scale during adjustment of the cutting depth of the cutter	0.02 mm.
Pitch diameter of the gear cutter	100 mm.
No. of strokes of the cutter per minute	125, 172, 253, 359
Circular feed of cutter per stroke	0.17; 0.21; 0.24; 0.30; 0.35; 0.44 mm/stroke of cutter.
Average radial feed of cutter per stroke	0.024; 0.048; 0.096 mm/stroke.

Motors: 3-phase, A.C.

Main drive motor:	Power	2.8 KW.
	Speed	1440 rpm.
Motor for rapid revolving of table:	Power	0.5 KW.
	Speed	1410 rpm.
Coolant pump:	Power	0.125 KW.
	Speed	2800 rpm.

Overall dimension (L x W x H) 1760x1270x2060 mm.
Net weight 3530 kg. approx.



*N.B.—For improvement of the machine, we reserve the
right to alter either the design or the specification.*

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